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## **Black holes, TeV-scale gravity and the LHC**

*Friday, March 8, 2013 10:20 AM (1 hour)*

Over the past 15 years models with large extra space-time dimensions have been extensively studied. We have learned from these models that the energy scale of quantum gravity may be many orders of magnitude smaller than the conventional value of  $10^{19}$  GeV. This raises the tantalizing prospect of probing quantum gravity effects at the LHC. Of the possible quantum gravity processes at the LHC, the formation and subsequent evaporation of microscopic black holes is one of the most spectacular. In this talk we give an overview of some of the fundamental ideas in black hole physics, the large extra dimensions scenarios, and black hole processes at the LHC. We also discuss recent experimental searches for these events.

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